#### **TABLE E.5**

# 2021 FUTURE CONDITION REGIONAL AIR CARRIER DAILY AVERAGE OPERATIONS SUMMARY Key West International Airport Master Plan Update

11000000	100		Depai	turés			10.000	esc.
Aircraft∗Ty	pe :	Stage L.	(0 - 500nm)	Stage 2 L.	(500 - 1000nm)	Arriv	/als	
Actual	INM <sup>1</sup>	Day	Night	Day	Night	Day	Night	Total
Cessna 402 (CE402)	BEC58P	8.71	0.97	-	- :	9.68	-	19.36
Beechcraft 1900	DHC6	8.79	1.43	-	-	8.79	1.43	20.43
EMB-135	CL600	9.26	2.03	-	-	11.29	-	22.58
EMB-145	EMB145	13.55	2.58	_	-	16.13	-	32.26
CRJ-700	BAE146	3.87	0.65	1.29	0.65	6.45	-	12.90
	Total	44.17	7.66	1.29	0.65	52.34	1.43	107.53

<sup>&</sup>lt;sup>1</sup> Integrated Noise Model, Version 6.0c

**TABLE E.6** 

# 2021 JET AIRCRAFT AVERAGE DAILY OPERATIONS SUMMARY Key West International Airport Master Plan Update

Aircraft Type		Depa	rture	Arrival		ing plastic March
Actual	INM <sup>1</sup>	Day	Night	Daý	Night	Total
Boeing 737-300	737300	0.0093		0.0093		0.0186
Canadair Regional Jet 700	BAE146	0.0093		0.0093		0.0186
Cessna 650	CIT3	0.1768		0.1713	0.0055	0.3536
Canadair 600, Falcon 2000/50	CL600	0.2709	0.0082	0.2791		0.5583
Canadair 601	CL601	0.2020	0.0027	0.2047		0.4094
Cessna 500/501/525	CNA500	0.5960	0.0274	0.5933	0.0301	1.2469
Cessna 750	CNA750	0.1210		0.1210		0.2419
Falcon 900	EMB145	0.0438	0.0027	0.0465		0.0930
Falcon 20	FAL20	(0.0110)	0.0110	(0.0027)	0.0027	-
Gulfstream II	GIIB	-		-		-
Gulfstream IV	GIV	0.1407	0.0082	0.1434	0.0055	0.2978
Gulfstream V	GV	0.1275	0.0027	0.1248	0.0055	0.2605
Westsind 1125/1125, Galaxy Jet	IA1125	0.2885		0.2885		0.5769
Hawker 100/400/600/700, Lear24/25,	LEADOC	0.0107	0.0010	0.0074	0.0055	0.4650
Sabreliner 40/60/70	LEAR25	0.2107	0.0219	0.2271	0.0055	0.4652
Beech 400, Falcon 10/200, Hawker						
800/1000, Lear 31/35/45/55/60,	LEAR35	2.8040	0.0712	2.8204	0.0548	5.7504
Sabreliner 65, Lockheed 1329			}			·
Cessna 550/551/560, Mitsubishi 300	MU3001	1.4592	0.0575	1.4592	0.0575	3.0334
	Total	6.4486	0.2137	6.4952	0.1671	13.3247

<sup>&</sup>lt;sup>1</sup> Integrated Noise Model, Version 6.0c

Source: Island City Flying Service, 2002. Key West International Airport, 2002. URS Corporation, 2003.

**TABLE E.7** 

## 2021 PISTON AND TURBO PROP AIRCRAFT AVERAGE DAILY OPERATIONS SUMMARY Key West International Airport Master Plan Update

Aircraft Type		Depa	rture	Arri		
Actual	INM <sup>1</sup>	Day	Night	Day	Night	Total
Beech 55/58/76, Cessna		. [				
310/337/340/402/411/421,	BEC58P	27.2444	0.3507	27.3814	0.2137	55.1901
Piper 23/30/31/34/44						
Cessna 150/172/177	CNA172	8.5710	0.1068	8.5765	0.1014	17.3557
Cessna 182/188/210	CNA206	2.8830	0.0329	2.8913	0.0247	5.8318
Convair 340	DC3	0.0000		0.0000		0.0000
Beech 24, Piper 18/28	GASEPF	2.4553	0.0466	2.4526	0.0493	5.0038
Beech 36, Mooney 20, Piper	GASEPV	11.9508	0.1534	12.0056	0.0986	24.2085
28/32/46	UAOLI V	11.5500	0.1304		0.0000	
Beech 90, Piper 42	CNA441	6.4164	0.0247	6.4192	0.0219	12.8822
Convair 580	CVR580	0.0000		0.0000		0.0000
Beech 200, Merlin,	DHC6	4.5371	0.0548	4.5289	0.0630	9.1837
Mitsubishi 2	וטווטו	4.0071	0.0540	4.0203	0.0000	
Gulfstream 159	HS748A	0.8810		0.8756	0.0055	1.7621
	Total	64.9390	0.7699	65.1308	0.5781	131.4178

<sup>&</sup>lt;sup>1</sup> Integrated Noise Model, Version 6.0c

Source: Key West International Airport, 2002. URS Corporation, 2003.

**TABLE E.8** 

# 2021 GENERAL AVIATION AVERAGE DAILY TOUCH AND GO OPERATIONS SUMMARY Key West International Airport Master Plan Update

Aircraft Type	1.00	Touch	and Go	300000000000000000000000000000000000000	
Actual	INM <sup>1</sup>	Day	Night	Total	
Bechcraft Skipper, Cessna 150, Cessna 152, Cessna 172, Cessna 177, Piper Cub (J-3), Piper Cherokee (PA28)		21.6329	0.2849	21.9178	
Beechcarft Bonanza, Cessna 182, Cessna 206, Cessna 210, Piper Arrow, Piper Cherokee Six, Piper Lance		17.3063	0.2279	17.5342	
Beechcraft Baron, Beechcraft Duke, Beech 18, Cessna 310, Cessna 340, Cessna 402, Cessna 421, Piper Aerostar, Piper Aztec, Piper Seneca, Piper Seminole	BEOE0D	4.3266	0.0570	4.3836	
Total		43.2658	0.5699	43.8356	

<sup>&</sup>lt;sup>1</sup> Integrated Noise Model, Version 6.0c

**TABLE E.9** 

## 2002 and 2021 FLIGHT TRACK UTILIZATION Key West International Airport Master Plan Update

		Type	Regional	General	General
Runway	Flight Track	Operation	Air. Carrier	Aviation Turbine	Aviation Piston
09	A1	Arrival	87.0%	93.0%	38.0%
09	A2	Arrival	5.0%	1.0%	57.0%
27	A3	Arrival	7.0%	5.0%	2.0%
27	A4	Arrival	1.0%	1.0%	3.0%
		Total	100.0%	100.0%	100.0%
09	D1	Departure	87.0%	93.0%	38.0%
09	D2	Departure	5.0%	1.0%	57.0%
27	D3	Departure	7.0%	5.0%	2.0%
27	D4	Departure	1.0%	1.0%	3.0%
		Total	100.0%	100.0%	100.0%
09	TG1	Local	-	-	95.0%
27	TG2	Local	-	-	5.0%
		Total	-	-	100.0%

Source: KWIA ATCT, 2000.

URS Greiner Woodward Clyde, 2000.

#### **TABLE E.10**

# 2002 EXISTING CONDITION NOISE EXPOSURE ESTIMATES Key West International Airport Master Plan Update

AREA BY LAND USE (ACRES)	DNL 65 dBA	DNL 70 dBA	DNL 75 dBA	TOTAL
Multi-Family Residential	6.0	0.4		6.4
Single-Family Residential	6.6	-	-	6.6
Mobile Homes	-	<u>.</u>		<b>-</b> '
Transient Lodging	4.9		-	4.9
Parks & Recreation	-	-	-	
Community Facilities	2.3	-	·	2.3
Commercial		-	-	
Airport	35.6	45.0	52.7	133.3
Military	15.9	3.0	0.1	19.1
Roads	5.0	0.4	-	5.4
Vacant Land	16.2	7.8	-	24.0
Water	24.4	5. <b>1</b>	2.5	32.0
Mixed Use	0.1	<b>-</b>	_	0.1
TOTAL	117.1	61.7	55.3	234.1

CONTOUR AREA (Square Miles)	DNL 65 dBA	DNL 70 dBA	DNL 75 dBA	TOTAL
oom on America	0.183	0.096	0.086	0.366

POPULATION	DNL 65 dBA	NL 70 dBA	NL 75 dEA	TOTAL
Single Family Residential	145	-	•	145
Multi-Family Residential	205	-	-	205
Mixed Use	2	-	-	2
Transient Lodging	98	_	_	98
TOTAL	450	0	0	450

HOUSING UNITS	DNL 65 dBA	DNL 70 dBA	DNL 75 dBA	TOTAL
Single Family Residential	63	-	-	63
Multi-Family Residential	89	<u>-</u>	1	89
Mixed Use	1	<b>-</b> .	-	1
Transient Lodging	55			55
TOTAL	208	0	0	208

TABLE E.11

# 2021 FUTURE CONDITION NOISE EXPOSURE ESTIMATES Key West International Airport Master Plan Update

AREA BY LAND USE (ACRES)	DNL 65 dBA	DNL 70 dBA	DNIL 75 JEA	TOTAL
Multi-Family Residential	7.1	1.5	-	8.6
Single-Family Residential	4.3		- 1	4.3
Mobile Homes	-	-	-	-
Transient Lodging	7.2	0.1	-	7.2
, Parks & Recreation		-	-	
Community Facilities	-	-	-	- :
Commercial	-	-	-	_
Airport	33.7	48.1	55.9	137.7
Military	13.0	5.5	9.9	28.5
Roads	5.3	0.0	-	5.4
Vacant Land	24.9	5.4	•	30.3
Water	31.2	7.8	5.0	44.0
Mixed Use		*	•	-
TOTAL	126.8	68.3	70.8	266.0

CONTOUR AREA (Square Miles)	DNL 65 dEA	DNL 70 dBA	DNL 75 dBA	TOTAL
CONTOON AREA (Square times)	0.198	0.107	0.111	0.415

POPULATION	DNL 65 dBA	DNL 70 dBA	DNL 75 dBA	TOTAL
Single Family Residential	94	-	-	94
Multi-Family Residential	202	-	-	202
Mixed Use	-	-	-	0
Transient Lodging	144	-	-	144
TOTAL	441	0	0	441

HOUSING UNITS	DNL 65 dBA	DNL 70 dBA	DNL 75 dBA	TOTAL
Single Family Residential	41	-	-	41
Multi-Family Residential	88	-		88
Mixed Use	•	-		0
Transient Lodging	81		-	81
TOTAL	210	0	0	210

APPENDIX F
COST ESTIMATES

## CONCEPTUAL COST ESTIMATE FOR

# KEY WEST INTERNATIONAL AIRPORT MASTER PLAN UPDATE CAPITAL IMPROVEMENT PROGRAM Key West, Florida

URS Greiner Project 12637817.00000

> Estimate Date March 2003

Prepared by

#### **URS** Corporation

7650 West Courtney Campbell Causeway

Tampa, FL 33607-1462 (813) 286-1711 FAX: (813) 287-8591

#### **Basis and Scope of Estimate:**

- This estimate has been prepared by the URS Cost Engineering Department using various Master Plan Documents, preliminary concept plans, airport layout plans and miscellaneous drawings.
- 2. The documents used to prepare this cost estimate are conceptual in nature and scope, and the quantities and costing applied are consistent with this level of detail.
- 3. Reasonable allowances have been made for any items not quantified.
- 4. All Airfield project costs are in 1999 dollars. All Roadway and Parking, Terminal and Support Facility project costs are in 1998 dollars.
- 5. All direct costs are based on current bid prices from similar airport projects, historical bid data, quotes from local contractors performing this type of work, and publications such as R.S. Means and Richardsons cost data
- 6. All unit pricing includes contractors markups for labor burden, material and equipment taxes, field overhead, home office overhead, and profit.
- 7. This estimate is intended for budgeting purposes and should be reviewed carefully for intended scope. These estimates should also be refined as design concepts are developed to ensure conformance with the budget and project scope.
- **8.** The detailed unit price estimates provide construction costs. The summary sheet for each project includes the following program costs where

Mitigation

**Land Purchase** 

Design Fees

**Permits** 

Construction Phase Services

**Owner Costs** 

Project Administration

- No escalation is included in any estimated cost in this document.
- 10. Some projects include large quantities of embankment. These quantities are based on incomplete topographic data and general visual observations. It is recommended that further study of these quantities be done to provide a more accurate cost estimate.

## KEY WEST INTERNATIONAL AIRPORT MASTER PLAN REPORT - SUMMARY OF ESTIMATES

Estimate	Description	Construction Cost	Program Cost	lotal Cost (Rounded)
	Els for DSA & Dura very Extension	^^	A1 000 000	AT 000 000
2	ElS for RSA & Runway Extension	\$0	\$1,000,000	\$1,000,000
	Establish Runway Safety Areas	\$7,920,000	\$1,980,000	\$9,900,000
3	Construct Runway Extension	\$2,600,000	\$650,000	\$3,250,000
4	Construct Aircraft Wash Rack	\$150,000	\$40,000	\$190,000
5	General Aviation Hangar Project	\$1,530,000	\$380,000	\$1,910,000
6	FBO Parking Rehab & Expansion	\$160,000	\$40,000	\$200,000
7	Signage Plan & Program	\$110,000	\$40,000	\$150,000
.8 9	Terminal Area Study / Preliminary Design	\$0	\$60,000	\$60,000
9	Passenger Terminal - Short Term Expansion	\$4,290,000	\$1,070,000	\$5,360,000
10	New Passenger Termina!	\$23,230,000	\$5,342,900	\$28,572,900
11	FBO Access Road	\$310,000	\$70,000	\$380,000
12	NIP - Phase 3	\$2,500,000	\$1,000,000	\$3,500,000
13	NIP - Phase 4	\$2,500,000	\$1,000,000	\$3,500,000
14	NIP - Phase 5	\$2,500,000	\$1,000,000	\$3,500,000
15	NIP - Phase 6	\$2,500,000	\$1,000,000	\$3,500,000
16	NIP - Phase 7	\$2,500,000	\$1,000,000	\$3,500,000
	TOTALS	\$52,800,000	\$15,672,900	\$68,472,900

Master Plan Update - Capital Improvement Plan

1 - EIS for RSA & Runway Extension

Description	Factors	Cost	item Totals	Cumulative Total:
CONSTRUCTION COSTS				
CONTINGENCIES				
· · · · · · · · · · · · · · · · · · ·	100/			
Change Order Contingency	10%	·		
ESCALATION		<u> </u>		
Number of Years				
Annual Inflation	4.0%			
	CONSTRUC	TION SUBTOTAL		
MANAGEMENT COSTS				
Force Account	n/a			
Project Management	4.5%			
Construction Management	6%			
sign Svcs. During Construction	4.5%			
Design Fees		\$1,000,000		
			\$1,000,000	\$1,000,00
OTHER COSTS				
OTHER COSTS  Land Purchase (0 acres)				
Land Purchase (0 acres)	Is			····
Land Purchase (0 acres) Survey Fees	ls Allow			
Land Purchase (0 acres)				
Land Purchase (0 acres) Survey Fees				\$1,000,00

Master Plan Update - Capital Improvement Plan

2 - Establish Runway Safety Areas

Description	Factors	Cost	Item Totals	Cumulative Totals
CONSTRUCTION COSTS				
			\$7,200,000	\$7,200,000
CONTINGENCIES				
Change Order Contingend	y 10%	\$720,000		
		<b>.</b>	\$720,000	\$7,920,000
ESCALATION				
Number of Yea	re			
Annual Inflatio				
7 Throat tillione	4.076			
	CONSTRU	ICTION SUBTOTAL		\$7,920,000
MANAGEMENT COSTS				
Force Accour	nt n/a			•
Project Managemer		\$356,400	•	
Construction Managemer		\$475,200		
esign Svcs. During Constructio		\$356,400		,
Design Fee		\$792,000		ş.
		<i>\$772,000</i> ]	\$1,980,000	\$9,900,000
OTHER COSTS				
Land Purchase (0 acres	6)			
Survey Fee				•
Utility Relocation				
				\$9,900,000
	P	ROJECT TOTAL		\$9,900,000

	DESCRIPTION	QUANTITY UNIT	UNIT PRICE	COST
ESTAB	LISH RUNWAY SAFETY AREAS			
RW 9	MOBILIZE	-1 ls	\$5,000.00	\$5,000
RW 9	MAINTENANCE OF AIR OPERATIONS	1718	\$34,500.00	\$34,500
	Maintenance of Air Operations	TUS		
RW 9	CLEARING - MANGROVES - 50% AREA	6.6 AC	\$6,900.00	\$45,564
	Pollution, Erosion and Siltation Control Total Safety Area (Info) 50% Area coverage - Mangroves	13.2 AC 13.2 AC 6.6 AC		
RW 9	STRIPPING and/or MUCK REMOVAL	7,031 CY	\$6.90	\$48,514
	4" Strippng Muck Removal	7,031 CY CY		
RW 9	EARTHWORK - STRIP SITE & PREP FOR FILL	10,654 CY	\$9:20	\$98,014
	Strip Site & Prep for fill figure moving 6" of material from onsite to	575,300 SF 10,654 CY		
RW 9	EARTHWORK - FILL QUANTITY based on fill volume:	31,362 CYn	\$48.98	\$1,536,108
	Cut Offsite Fill Place and compact onsite Fine grade, topsoil, grass	9.188 CYN 22.174 CYN 31,362 CYN 465,877 SF		
	STORM DRAINAGE	1 LS	\$92,000.00	\$92,000
	Injection Well System Contingency for related Items	2/EA 2/EA		
RW 27	MOBILIZE	1 is	\$5,000.00	\$5,000
RW 27	MAINTENANCE OF AIR OPERATIONS	1 LS	\$34,500.00	\$34,500
	Maintenance of Air Operations	T ts		
RW 27	CLEARING - MANGROVES - 81% AREA	13.1 AC	\$6,459.88	\$84,456
	Pollution: Erosion and Siltation Control Total Safety Area (info) 81%: Area coverage - Mangroves	16.1 ÁC 16.1 ÁC 13.1 AC		
RW 27	STRIPPING and/or MUCK REMOVAL	13,213 CÝ	\$8.89	\$117,479
	4" Strippng Muck Removal	8,129 CY 5,084 CY		

T,	DESCRIPTION	QUANTITY UNIT	UNIT PRICE	COST
RW :	27 EARTHWORK - STRIP SITE & PREP FOR FILL	13,020 CY	\$9:20	\$119,78
	Strip Site : & Prep for fill	703,090 SF	Supplied to the supplied of th	
	figure 'moving 6" of material from onsite t			
RW.	27 EARTHWORK - FILL	44,342 CYn	\$47.18	\$2,091,847
	FILL VOLUME Cut	833 CYN		
	Örfsite Fill	43,509 CYN		
	Place and compact onsite	44,342 CYN		
	Fine grade, topsoil, grass	556,528 SF		
	A Company of the Comp			
RW:	27 STORM DRAINAGE	11.5	\$92,000.00	\$92,000
	entronomia <mark>en en entronomia de la composició de la compo</mark>			
	Injection Well System Contingency for related items	2 EA		
file and file	Comingency for feldled fierrs	2 EA		
SAF	ETY AREA - NORTH			
RW:	27 MOBILIZE	1 is	\$5,000.00	\$5,000
RW :	27 MAINTENANCE OF AIR OPERATIONS	1 LS	\$5,000.00	\$23,000
	Maintenance of Air Operations	1 LS		
.RW :	27 CLEARING - MANGROVES - PREVIOUSLY CLEAR	u o Ls		
RW :	27 STRIPPING and/or MUCK REMOVAL	5,867 CY	\$6.90	\$40,480
	All O. I			· . ·
	4" Strippng Muck Removal	5,867 CY		
	Mack Removal	CY		
RW 2	27 EARTHWORK - STRIP SITE & PREP FOR FILL	8,889 CY	\$9.20	\$81,778
	Strip Site & Prep for fill	480,000 SF		
	figure moving 6° of material from onsite t			
Ditt.			_	_
KW 2	27 EARTHWORK QUANTITY based on fill volume	27,778 CYn	\$51.55	\$1,431,879
	Cut	CYN		
	Offsite Fill	27,778 CYN		
	Place and compact onsite	27,778 CYN		
	Fine grade, topsoil, grass	480,000 SF		
		SUBTOTAL		\$5,986,906
				1-12-012-0
		Contingency 20%		\$1,197,381
		CONSTRUCTION TOTAL	L (Rounded)	\$7,200,000

Master Plan Update - Capital Improvement Plan

3 - Construct Runway Extension

Description	Factors	Cost	ltem Totals	Cumulative Totals
CONSTRUCTION COSTS			· · · · · · · · · · · · · · · · · · ·	
			\$2,366,139	\$2,366,139
CONTINGENCIES	······································	<u> </u>	<del> </del>	
Change Order Contingency	10%	\$236,614		
			\$236,614	\$2,602,753
			7200,014	<del>42,002,700</del>
ESCALATION				
Number of Years	4.004			
Annual Inflation	4.0%			
	CONSTRU	CTION SUBTOTAL		\$2,602,753
MANAGEMENT COSTS				
Force Account	n/a	0117.104		
Project Management	4.5% 6%	\$117,124 \$156,165		
Construction Management esign Svcs, During Construction	4.5%	\$130,103		,
Design Fees	10%	\$260,275		K. C.
Doughtoo	10.0	<u> </u>	\$650,688	\$3,253,442
			-	
OTHER COSTS	<del></del>			
Land Purchase (0 acres) Survey Fees	ls			
Utility Relocations	Allow			
				\$3,253,442
	P	ROJECT TOTAL		\$3,253,442

	DESCRIPTION	QUANTITY UNIT	UNIT PRICE	COST
	CONSTRUCT RUNWAY EXTENSION			
	RW S MOE	1 is	\$5,000.00	\$5,0
	RW 5 MAINTENANCE OF AIR OPERATIONS	1 ts	\$34,500.00	\$34,5
	Maintenance of Air Operations	1/15		
	RW SEARI QUANTITY based on fill valume	1,651 CYn	\$48.98	\$80,8
	Cut	484 CYN		
	Offsite Fill	1,167 CYN		
	Place and compact onsite	1,651 CYN		and a second
	Fine grade, topsoil, grass	24.520 SF		
	RW (PAVING - RUNWAY	8,333 SY	\$36.74	\$306,1
	RW Paving 3" Asphalt / 10" Base	75,000 SF		
Section 1	RW § PAVING - TAXIWAY	4,800 SY	\$33.93	\$162,8
	TW Paving 3" Asphalt / 8" Base	43,198 SF		
201/201/201/201	RW SBLAST PAD	3,111 SY	\$29.44	\$91,5
10 SC NO. 50	Blast Pad Paving 2.5" Asphalt / 7" Base	28.000 SF		
S 060 mode (160	RW 5 MAR 1/2 project quantity	15,000 SF	\$8.24	\$123,6
27. AUTON	Remove old markings	5.000 SF		
800	Temporary or Initial non reflective	7,500 SF		
550000	Final Marking	15,000 SF		
Samo	LIGHTING	1 UN	\$255,990.00	\$255,9
14	Taxiway Lights			医多电流压线
0.50	End of RW Lights	6 EA		
100	RW Lights Threshold Lights	8 EA		E. Paris 18
1	Conduit and Wire UG	6.EA		
0000	Home run Wire in existing Conduit	4,200 LF		
1	Distance to Go Markers	4,200 LF 4 EA		
90.00	Junction Box / Hand Holes	10 EA		
100	Counterpoise wire w/ground rods	8,400 LF		
22	Lighting Vault Work	1 LS		
2	Taxiway Lights	ĒA		
	End of RW Lights	6 EA		
	RW Lights	EA		
	Guidance Lights	2.EA		
- 13	Distance to Go Markers	8 EA		

RW 27

MOBILIZE

\$5,000.00

DESCRIPTION	QUANTITY UNIT	UNIT PRICE	COST
RW: MAINTENANCE OF AIR OPERATIONS	1 LS	\$34,500.00	\$34,500
Maintenance of Air Operations	de 1115		
RW ZEARTFILL VOLUME	2,334 CVn	\$47.78	\$110,097
Cut Offsite Fill Place and compact onsite Fine grade, topsoil, grass	44 CYN 44 CYN 2 290 CYN 2 334 CYN 20 291 SE		
RW & PÁVING - RÚNWAY	5,556 SY	\$36.74	\$204;128
RW Paying 3" Asphalt / 10" Base	50,000 SF		
RW2PAVING - TAXIWAY	4,353 SY	\$33.93	\$147,691
TW Paying 3" Asphalt / 8" Base	39,181 SF		
RW 2BLAST PAD	3,111 SY	\$29.44	\$91,59
Blast Pad Paving 2.5" Asphalt J. 7" E	Base 28,000 SF		
RW :MAF1/2 project quantity	15,000 SF	\$8.24	\$123,62
Remove old markings Temporary or Initial non reflective Final Marking	5,000 SF 7,500 SF 15,000 SF		
RW 2LIGHTING  Taxiway Lights End of RW Lights RW Lights Threshold Lights Conduit and Wire UG Home run Wire in Existing conduit Distance to Go Markers Junction Box / Hand Holes Counterpoise wire w/ground rods Lighting Vault Work Taxiway Lights End of RW Lights RW Lights Guidance Lights Distance to Go Markers	1 UN 18 EA 6 EA 6 EA 3.000 LF 2.000 LF 2.2 EA 6 EA 5,000 LF 1 LS LA 6 EA 6 EA 8 EA	\$194.580.00	\$194,58

CONSTRUCTION	N TOTAL (Rounded)	\$2,366,139
Contingency	20%	\$394,357
UBTOTAL		\$1,971,783

Master Plan Update - Capital Improvement Plan

4 - Construct Aircraft Wash Rack

Description	Factors	Cost	Item Totals	Cumulative Total
CONSTRUCTION COSTS	<u> </u>			
		<b>_</b>	\$137,198	\$137,19
CONTINGENCIES		1		
Change Order Contingency	10%	\$13,720		•
Change Order Contingency	10%	\$13,720		
		·····		
			\$13,720	\$150,91
ESCALATION				
Number of Years				
Annual Inflation	4.0%			
	CONSTRUCT	ION SUBTOTAL		\$150,91
MANAGEMENT COSTS				· .
Force Account	n/a	·	4	•
Project Management	4.5%	\$6,791		
Construction Management	6%	\$9,055		
sign Svcs. During Construction	4.5%	\$6,791		
Design Fees	10%	\$15,092		
	<u> </u>	· · · · · · · · · · · · · · · · · · ·	\$37,729	\$188,64
OTHER COOKS		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
OTHER COSTS	· · · · · · · · · · · · · · · · · · ·			
Land Purchase (0 acres)	lo lo			
Survey Fees Utility Relocations	ls Allow	<u></u>		
Utility Relocations	AllOW			
				\$188,64
	DDC	DJECT TOTAL		\$188,64